THE TREATMENT OF GASTRIC AND DUODENAL ULCERS AND BENIGN OBSTRUCTIONS OF THE PYLORUS.[1]

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THE question, how may we distinguish between the medical and surgical gastric ulcer, is of the greatest interest. We know that some ulcers cure themselves, for we find the scars at post-mortem examinations, where the patient has not given any history of gastric ulcer. Many ulcers give no symptoms, as is shown by the large number of perforations occurring in patients who have never had dyspepsia. One such case came to my knowledge. A friend of mine made the post-mortem examination and found a large perforated gastric ulcer on the anterior gastric wall. Shattuck says that "there are only two conditions occurring in gastric ulcer which demand operation: first, perforation; second, obstruction." We will all agree regarding the propriety of operating upon perforation cases. Here, if the perforation is due to an acute ulcer, and the opening can be closed, the wound sponged or irrigated, and a large-sized supra-pubic drain put in soon after the perforation occurs, a large percentage will recover, with the aid of the Fowler position. My own experience makes me feel that gastro-enterostomy in acute perforations is harmful, and the three cured cases who have had no return of their symptoms in over three years make me feel that it is unnecessary. In subacute or chronic perforation a gastro-enterostomy may in some cases be a wise proceedure.

We can also all agree regarding the obstruction cases,

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whether it be in the congenital obstruction of infants, or obstructions by bands or from inflammatory tumors accompanying chronic ulcer of the pylorus; these conditions are mechanical and demand mechanical relief. The congenital contraction presents a difficult problem, for, before the diagnosis is made, the infant is usually starved to the verge of exhaustion, and its normal resistance, which at best is poor, is further lessened by the disease.

Then, again, according to Scudder, one-third of these patients recover under proper diet. The spasm or contraction relaxes and the child outgrows the obstruction. In speaking of patients who recover without operation, one is apt to confuse true congenital hypertrophy of the pylorus with some similar condition which resembles it. As Mr. Edmund Cantley says, "I have seen several supposed cases get well without operation, but in no one of them did I agree with the diagnosis. On the other hand, I have no doubt that a mild degree of the condition can exist without proving fatal, for of this we have distinct evidence in the cases seen in older children. Yet of 15 cases which have come under my notice, all have been verified at operation or post-mortem examination. Only two of the last ten have been treated by purely medical measures, and both succumbed."

Scudder also makes the surprising statement that from the statistics of operated cases 50 per cent. recover. I have recently seen two of these little sufferers with Dr. Ramsey, of St. Paul. Both had a pylorus which was practically closed. One died from exhaustion following a gastro-enterostomy by Dr. Goodrich, of St. Paul. The other died without any operative relief, the child's condition when he reached the hospital being so bad as to make it certain that he would not stand any operation, Before death we could distinctly see the peristaltic waves or contraction, slowly passing from left to right across the child's emaciated abdomen. A post-mortem in each case showed a slightly-dilated stomach, with a pyloric opening contracted to the

size of a small probe by an extensive hypertrophy of the walls of the pylorus; on section showing a thick, white, fibrous band about one mm. in thickness and almost one-half inch in width.

It seems to me that there should be at least one other class added to this list,—*i. e.*, relapsing gastric ulcer, as suggested by Dr. Chas. Greene and others. How many relapses, would be an individual question. The nine complete and permanent cures facetiously mentioned by Haggard would certainly be an outside limit. That many of the chronic ulcers, with and without hæmorrhages, do recover after proper medical treatment, I know from my own observations. The statement that we often hear at the operating-table, that this patient has had three, four or more medical cures, is not sufficient; most medical treatment is a farce. The prescribing of pepsin, pancreatin, peptinzyne, papoid, and similar medicines, is useless and absurd. If there is any foundation in the theory that gastric and duodenal ulcer is due to hyperacidity, then the use of large doses of alkalis one-half hour after meals would be a rational line of treatment. In questionable cases when we suspect gastric erosion or a commencing ulcer, large doses of bicarbonate of soda and bismuth have seemed to me of considerable benefit, in temporarily, at least, relieving gastric pain. As a remedial agent the stomach-tube is of little value; it is of the greatest aid in diagnosis, and in a few middle-aged patients, with impaired digestions due to deformed or slightly crippled stomachs caused by the contractions of a healed gastric ulcer, the occasional use of the stomach-tube gives considerable relief (Graham).

Proper medical treatment consists in putting the patient to bed and taking away all food by the mouth from four to six or more days, or until all tenderness on pressure over the stomach has disappeared; supplying water and nourishment by the rectum. In 90 per cent. of these cases a week's starvation will prove sufficient; then we may commence with liquid foods and in two or three days we can

add baked potatoes, well-cooked rice and breakfast foods, spinach and the lighter vegetables. Most of these cases will have to be careful of their diet for months, but so will surgical cases, for that matter; very few gastro-enterostomy patients can be careless about their diet without suffering ill effects.

I have been surprised at the number of fairly permanent cures which have followed the above line of treatment. Some of them no doubt relapsed and have gone to some one else for an operation, but most of them I have been able to keep track of and know that they were quite well for long periods of time. The cases which were not relieved and who commenced vomiting again have usually proven to have a benign stricture of the pylorus, open chronic ulcer, or gastric adhesions. Inflammation of the gall-bladder may cause adhesions of the duodenum or pylorus, and these will produce painful digestion or true obstruction. Adhesions of the body of the stomach by the interference with the normal movements of the organs may produce great disability. One of my patients upon whom I had performed a posterior-no-loop-suture gastro-enterostomy was recently reoperated upon after an interval of one year, to find that the anterior wall of the stomach was densely adherent to the abdominal incision; the pylorus was open, and the gastro-enterostomy opening had not contracted. When she tried to get up and do even the lightest work she vomited as badly as before her operation; when she was put to bed she could take and retain light foods. The separation of this adhesion, one and one-half inches long by one inch wide, with scissors,—the suturing of the raw surface and the covering of the suture lines by a piece of omentum, relieved her of her stomach distress.

One of the greatest difficulties in dealing with these stomach cases is to distinguish between true chronic ulcer and the neurasthenic cases which they so closely resemble; careful watching for some period of time will often be neces-

sary to distinguish between the two. I am always suspicious of the case when the operator does not find any evidence of gastric ulcer at the time of operation. Of course there may be gastric erosion or fissure producing spasmodic closure of the pylorus, but such cases are medical and not surgical as a rule, and I speak from personal experience when I say that the patients are not improved by gastro-enterostomy. I have one such case of my own, and I have seen several operated upon by others, who were worse rather than better as a result of gastric surgery. Gastro-enterostomy has been and still is the operation most frequently done for all sorts of gastric diseases; the posterior-no-loop operation as assembled by Moynihan and last described by Mayo is by far the best operation so far proposed; it is sound in its mechanics, easy and safe in competent hands. The various operations for drainage of the stomach which have served their usefulness and have now been discarded are the anterior-long-loop, button and suture operation, which are now used in exceptional cancer cases. Mr. Patterson and Mr. Battle think that the popularity of the posterior operation is due to fashion, and that the anterior operation has advantages which will bring it back to favor. My observation is that the dragging of the heavy anterior loop causes the contraction of the opening and a relapse of the obstructive symptoms.

A few years ago we heard a great deal about the necessity of closing the pylorus after a gastro-enterostomy. This necessity has in a great part disappeared since the posterior operation has taken the place of the anterior. The Finney operation has a very limited field; the Roux operation, although effective, is not necessary if the loop is short enough, and the mortality is greater because there are two intestinal openings and suture lines instead of one. But as an operation gastro-enterostomy has been overworked. Dr. Rodman tells me that he found many reported cases of perforation and fatal hæmorrhage following gastro-enterostomy; many due no doubt in large part to faulty opera-

tions, where the anastomosis has been followed by kinking or twisting of the intestine and consequent water-logging of the duodenum. My experience in surgery of the stomach has not been great. Although I have seen a large number of questionable cases, I have avoided operating when possible because the permanent results until the past two years have not been satisfactory and the result of medical treatment has been fairly good. I have lately operated upon 30 cases, the last 15 without a death.

The operation of the future will undoubtedly be some form of resection. In many of the cases now treated by gastro-enterostomy, in chronic ulcer of the pylorus without obstruction, and in hour-glass stomach, resection is especially applicable.